

Lower Assembly

1. Prepare the car

Begin by securely supporting the car on jack stands. Chock the rear wheels and set the parking brake to be sure vehicle does not roll. Always work on a flat, even surface. Remove the wheels to gain access to the brake system.

2. Disconnect tie rod ends

Remove the cotter pin and castle nut that secures the tie rod to the steering arm. You will reuse the castle nuts later. Use a heavy hammer to remove the tie rod end from the steering arm. A ball joint fork or “pickle fork” may be needed to break things loose.

3. Disconnect front flex hoses

Unscrew the hard line from the flex hose, being careful not to get brake fluid on painted surfaces. Remove the flex hose retaining clip and pull the hose out of the frame mounted bracket.

4. Remove drum brake assemblies

Remove the original drum brake hardware from the spindle. You should also unbolt the steering arms at this time.

5. Inspect suspension components

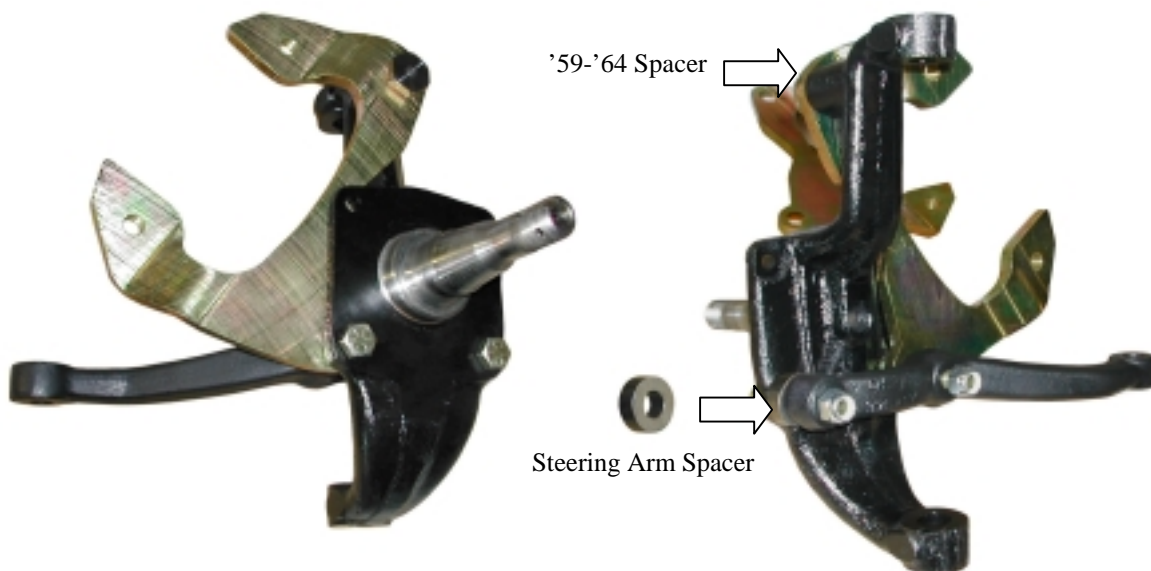
Now is the time to clean up and inspect your suspension components. Check the inner and outer tie rod ends and ball joints for wear and replace if needed. Inspect the rubber boots for cracks or tears. Universal replacements are available at most automotive parts stores.

6. Install the caliper brackets and steering arms

Install the appropriate caliper bracket onto the spindle and hold it in place with the special 5/8" bolt. '59 – '64 owners need to use the large diameter washer to space the bracket out away from the spindle.

Note: The opening for the caliper should face towards the rear of the car. Left is driver's side, right is passenger's side.

Reinstall your old steering arm using the new bolts. Use the small diameter washer to space out the front steering arm bolt. Place the tie rod end back into the steering arm and fasten it with the original castle nut. Torque the nut to the specifications provided in the assembly manual. Fix it in place with the new cotter pin supplied with your kit.



7. Grease the bearings and install the rotors

You are now ready to install the bearings and rotor. Start by placing the rotor face down. Races come preinstalled in the rotors. If you received additional races with your bearings, they will not be used. Apply a little bearing grease to the bearing race already in the rotor and pack the larger of the two bearings (Inner) with grease. Install the bearing into the rotor and place the grease seal on the rotor. Tap the seal into place being careful not to damage the rubber portion of the seal.



Inner Bearing Assembly



Outer Bearing Assembly

Note: Drilled and/or slotted rotors are directional. Be sure you have the appropriate rotor for the side of the car you are working on. Left is driver's side, right is passenger's side.

Turn the rotor face up and grease the bearing race. Pack the smaller bearing (Outer) and place it in the rotor. Slide the rotor onto the spindle being careful that the outer bearing does not fall out of place. Install the keyed washer and castle nut and torque to the specifications provided in the assembly manual. Fix it in place with the new cotter pin supplied with your kit. Install the dust cap with a mallet and a large socket placed over the dust cap. A screwdriver can also be used along the edges.

8. Mount the calipers and flex hose

Your new calipers come fully loaded with pads, bolts, and copper washers. Start by removing the caliper pins and position the caliper in the bracket with the bleeder screw at the 12 o'clock position. If the caliper won't install in the brackets with the bleeder pointed up, you probably have the opposite side caliper. Insert the caliper pins and torque to the specifications provided in the assembly manual. Due to variations in brake pads, you may need to modify the wear sensor to clear the caliper bracket.

Note: The bleeder screws must be pointed up. If the bleeders are pointed down, the calipers will trap air and you will not get the system to bleed properly.

Remove the banjo bolt and copper washers from the caliper. Place a copper washer on top of the flex hose and insert the banjo bolt. Place the second copper washer over the banjo bolt on the bottom of the flex hose and bolt the hose onto the caliper with the specifications provided in the assembly manual.

Note: Make sure the flex hose seats square against the caliper. You may need to flip the hose over.

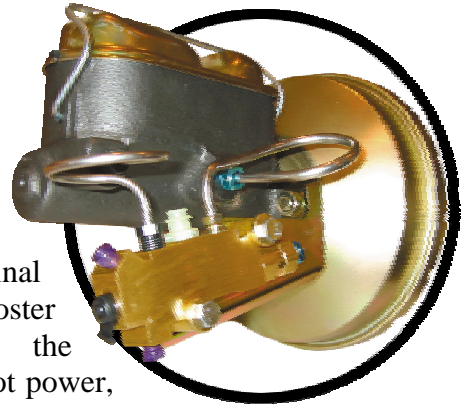
Insert the other end of the flex hose into your original frame brackets. You may need to file the inside of your original brackets to accommodate the new flex hose. Push on the new flex hose clip supplied with your kit. At this point the hose might seem a little tight when you turn the wheels from lock to lock. This is normal. The suspension is flexed to the absolute limits of its travel. You would have to be airborne while making a sharp turn to recreate these conditions while driving.



Upper Assembly

1. Remove the old master cylinder assembly

Remove the master cylinder brake lines being careful not to get fluid on any painted surfaces. Remove the clevis from the pedal rod under the dash. If your original system was power, you should be able to remove the booster mounting nuts from the firewall and remove the booster/master assembly. If your original system was not power, simply remove the master cylinder mounting nuts from the firewall and remove the master cylinder.



2. Mount the new master cylinder and booster assembly

- a. After opening the booster and master cylinder, inspect the booster rod length and master cylinder pocket depth. The booster rod should protrude from the booster face approximately the same length as the depth of the pocket in the master cylinder. Short systems use a $\frac{1}{4}$ " rod and pocket. Long systems use a rod and pocket of approximately $1\frac{1}{2}$ ".



Short Rod

Long Rod



Short Pocket

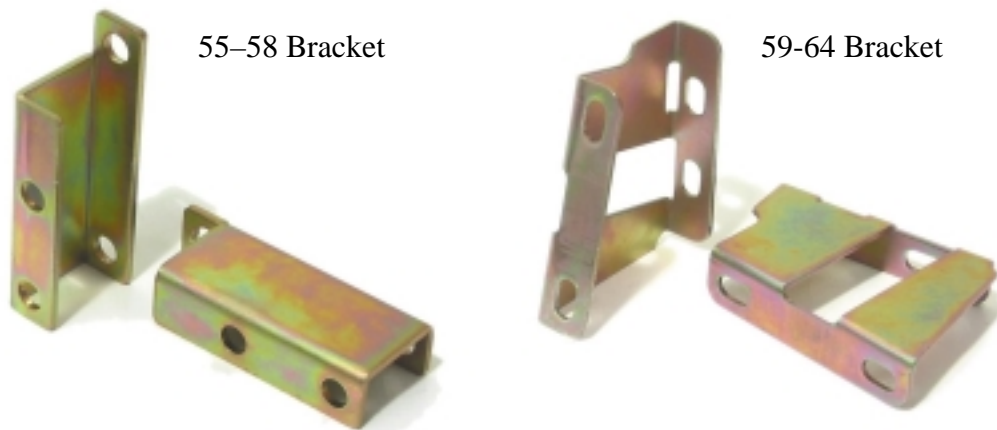
Long Pocket

Note: Delco style boosters come with a long and a short rod. Insert the short rod into the hole in the front of your booster if you have a short pocket master cylinder. Use the long rod if your master cylinder has a pocket over 1" deep.

- b. Place the master cylinder over the two studs of the booster and hold it in place with a nut on the passenger's side stud only.
- c. Slide the valve bracket over the driver's side stud of the booster and loosely tighten it down with the nut.

Note: Leave the mounting nuts a little loose at this point. It makes the lines much easier to install if there is a little play in the bracket.

- d. Bolt the proportioning valve to the outside (driver's side) of the bracket with the hardware supplied in your kit.
- e. Now you're ready to install the master cylinder lines. If you purchased lines with your conversion kit, the two small loop lines are the master cylinder lines.
- f. Tighten up both of the mounting nuts
- g. Bolt the booster brackets to the booster
- h. Bolt your finished assembly to the four studs on the firewall
- i. Supply vacuum to the booster check valve



3. Install and adjust the pedal rod

Attach the threaded rod coming off of the back of the booster to the bottom hole in your brake pedal with the clevis supplied in your kit. Do not install the cotter pin at this point. You will need to turn the clevis to adjust the pedal height later. Most boosters require a pedal rod extension to obtain the appropriate pedal height. This extension is supplied with your kit if your booster requires it. 11" Delco boosters do not require the extension.

Note: The pedal rod should not be put in a bind when attaching it to the pedal assembly. If there is only one hole in your pedal, you may need to drill a second hole about 1" lower than the original hole.

Adjust the pedal rod so there is about $\frac{1}{4}$ " – $\frac{1}{2}$ " of free travel at the top of the pedal. Be sure to tighten all jam nuts on the pedal rod to lock it in place after all your adjustments are made.

Bleeding the system

Working your way forward from the wheel farthest from the master cylinder will help insure a good bleed and a firm pedal. It is important to bleed the system in the following order:

- 1. Right Rear**
- 2. Left Rear**
- 3. Right Front**
- 4. Left Front**

If you have a spongy pedal, be sure the bleeder screws are pointed up and try re-bleeding the system.

Technical Support

We want your conversion project to go smoothly. Double check that you have followed these instructions correctly and those included with any upgrade components you may have purchased. If you need additional help getting your new disc brakes to function properly, we're here for you. Give us a call at (800) 405-2000 or you can email your questions including photos to tech@rightstuffdetailing.com

Thank You for Your Business!



**Brake & Fuel
Line Systems**

**Disc Brake
Conversions**

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PV71 Fixed Combination Valve Supplement

This supplement is for customers who have chosen the “fixed” combination valve with the purchase of our disc brake conversion kits. This diagram shows where each port of the valve routes. If you have any further questions or concerns, please don't hesitate to call our toll free technical support line. Thank you again for your business.

